

Start here!

MYSTERY GUIDE

- ♥ Take this Mystery Guide and a pen or pencil with you as you explore. To complete your Nature Detective training at this park, complete at least 3 of the 6 activities.
- ♥ Inside you will find a map of the park, which will serve as a guide. Some activities correspond to locations on the map, , and some activities can be done anywhere.
- ♥ Feel free to get help from grown-ups on this, but remember, these activities are for you! You can write or draw anywhere in this mystery guide. The more thoughtful and artistic, the better!

YOUR CASE: HEIL VALLEY RANCH

This park is home to a variety of wildlife. Tuft-eared Abert's squirrels are often seen in this pine forest, and elk migrate here in winter from higher elevations. In the past, Native Americans, beaver trappers, gold seekers, and cattle ranchers have also called Heil Valley Ranch home.

Nature Detectives Club Mystery Guides can be found at:

- 1) Agricultural Heritage Center
- 2) Bald Mountain Scenic Area
- 3) Betasso Preserve
- 4) Caribou Ranch Open Space
- 5) Carolyn Holmberg Preserve
- 6) Heil Valley Ranch
- 7) Mud Lake Open Space
- 8) Pella Crossing
- 9) Walden Ponds Wildlife Habitat

Drop completed mystery guides in the Nature Detectives Club mailbox at each park. If you need to finish at home, mail it to us: Nature Detectives Club, Boulder County Parks and Open Space, 5201 St. Vrain Road, Longmont, CO 80503

Complete the information below so we can send you prizes and return your mystery guides!

Grown-ups, please provide the following information:

Detective's name: _____

_____ Age: _____

Address: _____

City, State: _____

Zip code: _____

Phone: _____

BoulderCountyOpenSpace.org

2016



NATURE DETECTIVES CLUB



HEIL VALLEY RANCH

A mystery awaits in this county park full of clues!

- ♥ **Your mission** is to become a young Nature Detective, collecting clues from the world around you, and solving mysteries of the forest, prairie, wetlands, and mountains.
- ♥ After completing a mystery guide we will send you a useful tool for your future outdoor adventures.
- ♥ All right detective, let's go!

(Intended for ages 4-11)

1

Are You Lookin' at Some Lichen?

Have you noticed the many colors on the rocks? Those colors are living organisms called lichen! Lichens are not plants, but actually fungi (like a mushroom) and algae (like the scum on lakes) working together to survive in places where they couldn't live on their own.



Write in the space below all the different colors of lichen you can identify.

2

Touching Rocks & Boulders

Rocks come in a variety of shapes, colors, and textures that make them fun to look at and touch. Rocks may be soft or hard, rough or smooth, and big or small. Your mission is to find three different rocks and use your senses to describe how they look and feel.

Rock 1:

Rock 2:

Rock 3:

Bonus: Can you guess where boulders along the Lichen Loop came from?

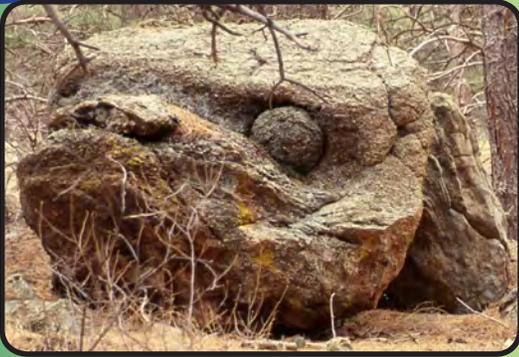
For the answer, hold a mirror to the following: **They tumbled downhill from rock formation to the east!**

HEIL VALLEY RANCH NATURE DETECTIVES MAP

Feel free to write or draw on your map!

3

MAP ACTIVITY!



Rock Hound

Can you find the Bulldog Boulder?

Draw an X on the map where you see it.

Hint: It is located on the north side of the loop.

LEGEND

 Parking area

 Restrooms

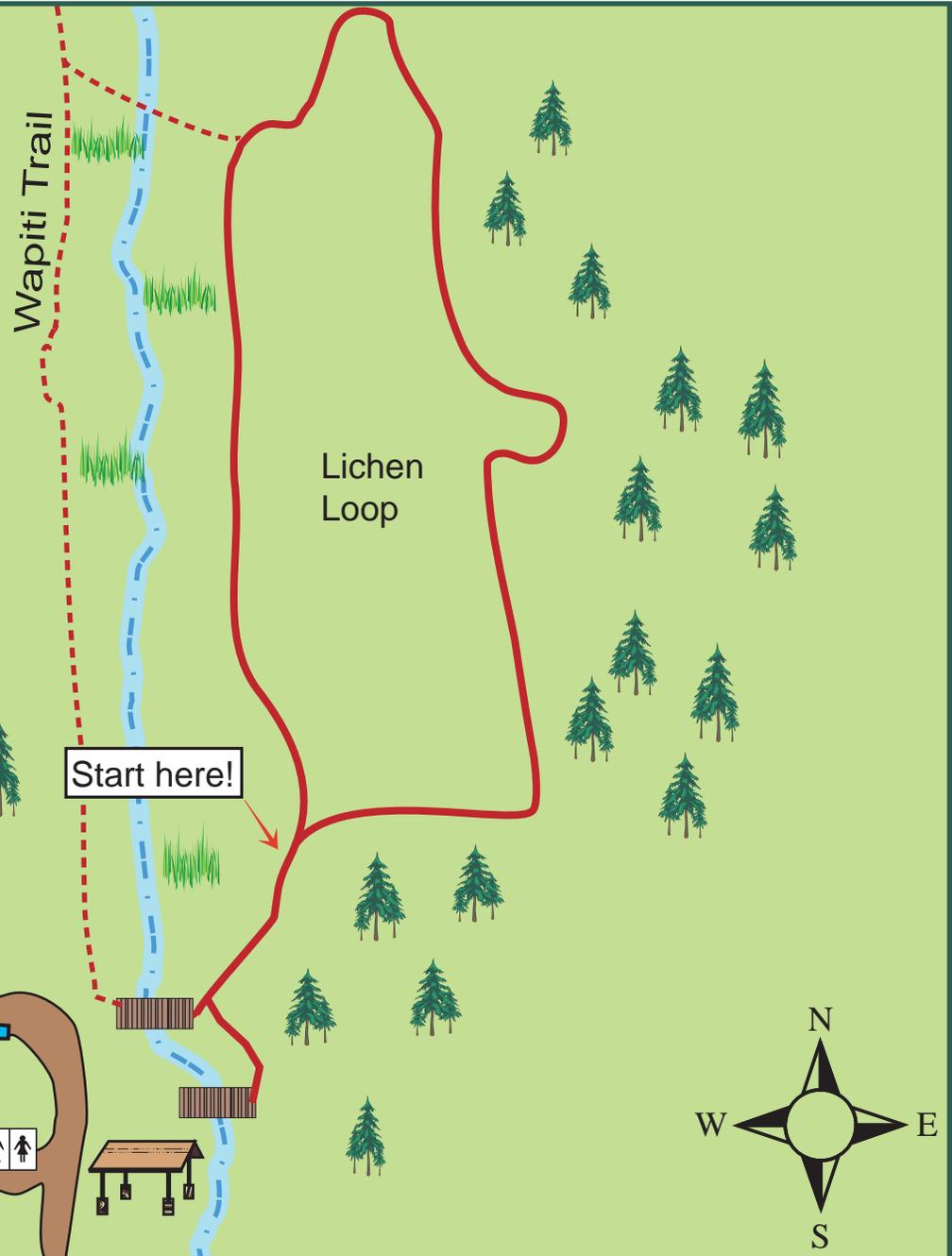
 Main trail

 Other trails

 Creek

 Picnic shelter

 Bridge



4

Come Out, Come Out, Wherever You Are!

Prey is an animal that is hunted for food. Every day is a struggle to survive as they must search for food and avoid being eaten. That's why prey use different tricks, called adaptations, to hide from danger. For example, a skunk's adaptation is its stinky smell, and a turtle's adaptation is its hard, protective shell. Pretend you are a prey animal. In the space below, draw yourself and write what adaptations you use to survive.



5

I Spy With My Little Eye

Look for each of the items described below. Once you spy something, write it on the line.



Yummy yummy in my tummy.
I spy something an animal might eat.

Pick up a rock and look underneath.
I spy an insect.

Look up! I spy something in the sky.

6

Who Am I?

Black bear, elk, and wild turkey are three animals that call Heil Valley Ranch home. Draw a line connecting each animal to the appropriate description.



Wild Turkey



Black Bear



Elk

This animal has long claws for digging roots out of the ground.

This animal likes to chew the bark off aspen trees.

To impress a female, the male of this species fans out its tail in a wide circle.